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CLAIMS

1. ~~An apparatus for dynamically controlling transmission power from a~~
2 ~~central CDMA communications station, comprising:~~

3 ~~receiver means for receiving a signal from a remote station; and~~

4 ~~transmitter means for adjusting a transmission power for the received~~
5 ~~signal to an acceptable level following a transmission power increase, wherein~~
6 ~~the acceptable level is determined by a method comprising the steps of:~~

7 ~~determining the cause of the transmission power increase, wherein~~
8 ~~the cause of the transmission power increase may be a random fade~~
9 ~~condition or a continuing fade condition;~~

10 ~~if the cause of the transmission power increase is a random fade~~
11 ~~condition, then reducing the transmission power at a first predetermined~~
12 ~~rate for a first predetermined time period in response to the transmission~~
13 ~~power increase;~~

14 ~~if the transmission power is still at an unacceptable level~~
15 ~~after the step of reducing the transmission power at a first~~
16 ~~predetermined rate for a first predetermined time period, then~~
17 ~~continuing to reduce the transmission power at a second~~
18 ~~predetermined rate for at least one other predetermined time~~
19 ~~period following the first predetermined time period, wherein the~~
20 ~~first predetermined time period and the at least one other~~
21 ~~predetermined time period may or may not be of equal duration;~~
22 ~~and~~

23 ~~if the cause of the transmission power increase is a continuing fade~~
24 ~~condition, then maintaining the transmission power.~~

2. The apparatus of Claim 1, wherein the first predetermined rate is a nonzero predetermined rate and the second predetermined rate is at least one other nonzero predetermined rate.

3. The apparatus of Claim 1, wherein the received signal is a power control message generated by the remote station.

4. The apparatus of Claim 1, wherein the received signal is a motion message generated by the remote station.

5. The apparatus of Claim 1, wherein the receiver means is used further for measuring a Doppler shift in the received signal and wherein the transmitter means is for adjusting the transmission power level in accordance with the measured Doppler shift.

6. The apparatus of Claim 1, further comprising a decoder means for decoding the received signal and for generating a quality estimate in accordance with the decoded signal and wherein the transmitter means is for adjusting the transmission power in accordance with the quality estimate.

7. The apparatus of Claim 1, wherein the receiver means is further for measuring received signal power, and wherein the transmitter means is for adjusting the transmission power in accordance with the measured received signal power.

~~8. An apparatus for controlling transmission power of variable rate frames of data, comprising:~~

~~control processor means for providing a transmit power signal;~~

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4 ~~variable gain transmitter means for receiving the transmit power signal~~
 6 ~~and a frame rate signal, and for amplifying the variable rate frames in accordance~~
 8 ~~with the transmit power signal and the frame rate signal; and~~

8 ~~variable rate data source means for providing the variable rate data~~
 10 ~~frames and the frame rate signal, wherein the frame rate signal is based upon a~~
 12 ~~characterization of the cause of the transmission power increase as a random~~
 14 ~~fade or a continuing fade.~~

2 The apparatus of Claim 8, wherein the control processor means is further
 4 for determining a reference rate transmit power level, and for determining at
 6 least one additional reference rate transmit power level in accordance with the
 8 reference rate transmit power.

10. The apparatus of Claim 9 further comprising receiver means for receiving
 2 a frame quality message from a remote communication station, wherein the
 4 control processor means is responsive to the frame quality message.

11. The apparatus of Claim 10, wherein the control processor means
 2 comprises a gain adjust selector means for selecting a gain adjustment value
 4 responsive to the frame quality message.

12. An apparatus for adaptively controlling transmission power within a
 2 central CDMA communications station, comprising:

4 receiver means for receiving velocity information from a remote station;

6 and

8 transmitter means for transmitting a transmission power increase signal
 and a power adjustment signal to the remote station, wherein the transmission
 power increase signal increases a transmission power level of a transmission
 from the remote station by a predetermined value and the power adjustment

10 signal adjusts the predetermined value by an incremental amount, wherein the
power adjustment signal is based on the received velocity information.

2 13. The apparatus of Claim 12, wherein the incremental amount is 1 dB if the
velocity information indicates that the remote station is moving.

2 14. The apparatus of Claim 12, wherein the incremental amount is 0.25 dB if
the velocity information indicates that the remote station is stationary.

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